



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/972,318	10/05/2001	Gaku Takeuchi	463P078	4117

7590  
Kevin S. Lemack  
Nields & Lemack  
176 E. Main Street  
Westboro, MA 01581

06/19/2003

EXAMINER

SANDERS JR, JOHN R

ART UNIT	PAPER NUMBER
----------	--------------

3737

DATE MAILED: 06/19/2003

2

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/972,318

Applicant(s)

TAKEUCHI ET AL.

Examiner

John R. Sanders

Art Unit

3737

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 05 October 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☒ Claim(s) 4 and 5 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 October 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

## **DETAILED ACTION**

### ***Priority***

1. Acknowledgment is made of applicant's claim for foreign priority based on an application filed in Japan on 10 October 2000. It is noted, however, that applicant has not filed a certified copy of the JP 309484/2000 application as required by 35 U.S.C. 119(b).

### ***Inventorship***

2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

### ***Claim Objections***

3. Claims 2-5 are objected to because of the following informalities: In the preambles to claims 2-5, "An" should be changed to --The--. In claim 2, line 3, "to enable to change an aperture" is grammatically incorrect. Consider revising to --enable a change in an aperture--. Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1 and 2 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,579,063 to *Magnante et al.*

6. *Magnante et al.* discloses an eye characteristic measuring system (FIG.1) comprising a changeable aperture diaphragm (col. 4: 42-51) arranged at a position conjugate to the pupil (6) of an eye; a projection optical system (1, 2, 7) for projecting an index image via the aperture diaphragm onto the fundus (8); a photodetection optical system (11, 12, 13) for receiving a secondary index image reflected from the fundus via the aperture diaphragm (4); and a detection unit (CCD camera 14) which detects a light amount intensity distribution of the secondary index image (col. 8: 28-48).

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over *Magnante et al.* in view of U.S. Patent No. 6,234,978 to *Mihashi et al.*

Art Unit: 3737

9. *Magnante et al.* discloses the aperture diaphragm as described above, but does not disclose expressly the aperture designed such that a position of the aperture can be changed.

*Mihashi et al.* discloses an optical characteristic measuring apparatus (FIG. 1A) with a variable aperture diaphragm (202) that is designed to be shifted laterally and longitudinally in order to dispose different sub-diaphragms (202a, 202b) onto the optical axis (col. 3: 33-42) or to obtain information about different locations on the eye (col. 10: 45-64). *Mihashi et al.* also discloses sensing the light amount intensity distribution (col. 9: 27-34)

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to modify the apparatus of *Magnante et al.* to include an aperture designed so that the position of the aperture can be changed, as in *Mihashi et al.*

#### ***Allowable Subject Matter***

10. Claims 4 and 5 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

11. The following is a statement of reasons for the indication of allowable subject matter: *Mihashi et al.* discloses a plurality of apertures disposed in the optical path of the apparatus, but does not disclose said apertures to be means for dividing the reflected light beam into a plurality of regions. Wavefront sensing apparatuses, now common in the art, may include plates with multiple aperture/lens combinations in order to subdivide the light beam into regions (see *Liang et al.* '221, FIG.5). However, the prior art does not appear to cover an aperture diaphragm, comprising a plurality of aperture plates designed to divide a light beam into a plurality of

Art Unit: 3737

regions, disposed such that both the light incident to the pupil and the light reflected from the fundus pass through the plurality of aperture plates.

***Conclusion***

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. *Liang et al.* '221, *Matsumoto* '049 and *Aizu et al.* '107 disclose optical characteristic measurement apparatuses including aperture diaphragms. *Kusaka* '321 discloses a plurality of apertures and photodetectors for detecting light distribution.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John R. Sanders whose telephone number is (703) 305-4974.

The examiner can normally be reached on M-F 8:30 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marvin M. Lateef can be reached on (703) 308-3256. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-3590 for regular communications and (703) 308-0758 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0858.



jrs  
June 13, 2003



Marvin M. Lateef  
Supervisory Patent Examiner  
Group 3700